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File: PGPB

Mar 20, 2003

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DOCUMENT-IDENTIFIER: US 20030055759 A1

TITLE: System and methods for creating and evaluating content and predicting responses to content

PUBLICATION-DATE: March 20, 2003

## INVENTOR-INFORMATION:

| NAME                 | CITY      | STATE | COUNTRY | RULE-47 |
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US-CL-CURRENT: 705/35

## CLAIMS:

We claim as our invention:

1. A method of creating new content based on previously experienced content and content ratings, comprising: obtaining content attributes from embedded content information or from external sources; recording set-top box events as content is experienced; correlating set-top box events to content attributes; and, analyzing such correlations over time to determine the effect of content attributes on content ratings.
2. The content creation method of claim 1, further comprising: analyzing the effect of content attribute order on content ratings.
3. The content creation method of claim 1, further comprising: determining a preferred content attribute set and content attribute presentation order.
4. The method of claim 1 in which the content attributes include times at which various content attributes are presented to a set-top box.
5. The method of claim 1 in which the set-top box events are recorded in a privacy compliant manner.
6. A method of creating new content based on previously experienced content and content ratings, comprising: obtaining content attributes from embedded content information or from external sources, including times at which various content attributes are presented to a set-top box; recording set-top box events as content is experienced; correlating set-top box events to content attributes; analyzing such correlations over time to determine the effect of content attributes on content ratings; analyzing the effect of content attribute order on content

ratings; and determining a preferred content attribute set and content attribute presentation order.

7. The method of claim 6 in which the set-top box events are recorded in a privacy compliant manner.

8. A method of creating new content based on previously experienced content and content ratings, where such new content is directed toward a demographic group, comprising: obtaining content attributes from embedded content information or from external sources; recording set-top box events as content is experienced; correlating set-top box events to content attributes; correlating set-top box events and content attributes to demographic characteristics; analyzing such correlations over time to determine the effect of content attributes on content ratings for a given demographic group; analyzing the effect of content attribute order on content ratings for a given demographic group; and determining a preferred content attribute set and content attribute presentation order for a given demographic group.

9. The method of claim 8, in which the set-top box events are recorded in a privacy-compliant manner.

10. A system for predicting future events based on a proposed dataset, consisting of: a dataset of past events; a known dataset sharing at least one attribute with the dataset of past events, and with substantially similar attributes to the proposed dataset; a means of correlating the dataset of past events with the known dataset to form a new dataset; and, a means of correlating the new dataset to the proposed dataset.

11. The system of claim 10, where the dataset of past events consists of set-top box event data.

12. The system of claim 11, in which the data collected in the past event dataset is collected in a privacy compliant manner.

13. The system of claim 11, in which the known dataset consists of sales figures.

14. The system of claim 11, where the known dataset consists of content attributes and content presentation data.

15. The system of claim 14, where the proposed dataset consists of a set of content attributes for proposed content.

16. A method of predicting future events given a proposed dataset, comprising: monitoring past events; correlating the past events with a dataset sharing at least one attribute with the past events, and with a substantially similar structure to the proposed dataset, the results of such are stored in an array; correlating the array with the proposed dataset; and reporting the results of the array/proposed dataset correlations as a prediction of future events.

17. The method of claim 16, in which the past events include set-top box events.

18. The method of claim 16, in which the past events are collected in a privacy compliant manner.

19. The method of claim 17, in which the proposed dataset substantially consists of proposed content attributes.

20. The method of claim 19, in which the dataset includes previously presented content attributes.

21. The method of claim 20, in which the dataset consists of sales figures.

22. A system of predicting future events for a given demographic segment, comprising: a dataset of past events; a demographic dataset sharing at least one attribute with the dataset of past events; a means of correlating the dataset of past events with the demographic dataset and storing the result in an array; a known dataset sharing at least one attribute with the demographic dataset, and with substantially similar attributes to the proposed dataset; a means of correlating the array with the known dataset to form a new dataset; and, a means of correlating the new dataset to a proposed dataset.

23. The system of claim 22 in which the past events are collected in a privacy compliant manner.

24. The system of claim 22 in which the dataset of past events corresponds to set-top box data.

25. The system of claim 22 in which the demographic dataset shares a zip code or other geographic identifier with the set-top box data.

26. The system of claim 22 in which the known dataset shares a zip code or other geographic identifier with the array.

27. The system of claim 22 in which the proposed dataset is comprised of proposed content and attributes corresponding thereto.

28. A system of predicting future events for a given demographic segment, comprising: a dataset of past set-top box events, collected in a privacy compliant manner; a demographic dataset sharing at least one attribute with the dataset of past set-top box events, such as a zip code or other geographic identifier; a means of correlating the dataset of past events with the demographic dataset and storing the result in an array; a known dataset sharing at least one attribute, such as a zip code or other geographic identifier, with the demographic dataset and with substantially similar attributes to the proposed dataset; a means of correlating the array with the known dataset to form a new dataset; and, a means of correlating the new dataset with a proposed dataset comprised of proposed content and attributes corresponding thereto.

29. A method of predicting future events for a given demographic based on a proposed dataset, comprising: monitoring past events; correlating the past events with a demographic dataset and storing the result in an array; correlating the array with a dataset sharing at least one attribute with the array, and with a substantially similar structure to the proposed dataset, the results of such are stored in an additional dataset; correlating the additional dataset with the proposed dataset; and reporting the results of such correlations as a prediction of future events.

30. The method of claim 29, in which the past events are monitored in a privacy compliant manner.

31. The method of claim 29, in which the past events include set-top box events.

32. The method of claim 31, in which the demographic dataset and the set-top box event dataset both contain zip code attributes.

33. The method of claim 29, in which the proposed dataset substantially comprising proposed content attributes.

34. The method of claim 29, in which the past events include attributes of any content being experienced at the time of an event.

35. A method of predicting future events for a given demographic based on a proposed dataset, comprising: monitoring past events, including set-top box events, a zip code associated with a set-top box, and attributes of content presented by the set-top box at the time the event occurs, in a privacy compliant manner; correlating the past events with a demographic dataset which includes at least one zip code, and storing the result in an array; correlating the array with a dataset sharing at least one attribute with the array, and with a substantially similar structure to the proposed dataset, the results of such are stored in an additional dataset; correlating the additional dataset with a proposed dataset, substantially comprised of proposed content attributes; and reporting the results of such correlations as a prediction of future events.

36. A method of predicting behaviors of non-sampled demographic specifications based on sampled demographic specifications of a given level comprising: monitoring past behavior and correlating the behavior with demographic characteristics monitored; breaking a non-sampled demographic specification into sub-specifications for which sample data has been collected; establishing the statistical effects of various rules on each sub-specification and those characterizations comprising them; and statistically predicting non-sample behaviors based on such effects.

37. The method claim 36, further comprising: observing correlations between behaviors of sampled demographic specifications or sub-specifications and behaviors of non-sampled demographic specifications; and, inferring behaviors of the non-sampled demographic specifications from such correlations, such that predicted or observed sampled demographic specification behaviors may be reported as non-sampled demographic specification behaviors within a determinable level of accuracy.

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Sep 11, 2003

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PGPUB-DOCUMENT-NUMBER: 20030172374  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20030172374 A1

TITLE: Content reaction display

PUBLICATION-DATE: September 11, 2003

## INVENTOR-INFORMATION:

| NAME                | CITY         | STATE | COUNTRY | RULE-47 |
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US-CL-CURRENT: 725/9; 725/14, 725/34, 725/35, 725/46

## CLAIMS:

What is claimed is:

1. Method of evaluating content reactions, comprising: collecting content reaction data; associating the collected content reaction data with at least one identifier associated with a first user; storing the content reaction data and the at least one identifier in at least one database; causing content associated with the content reaction data to be presented to a second user; and, displaying content reaction data as the content is presented to the second user.
2. The content reaction evaluation method of claim 1, wherein the content associated with the content reaction data is a television program.
3. The content reaction evaluation method of claim 1, wherein the content associated with the content reaction data is a radio program.
4. The content reaction evaluation method of claim 1, wherein the content associated with the content reaction data is an advertisement.
5. The content reaction evaluation method of claim 4, wherein the content associated with the content reaction data is a television advertisement.
6. The content reaction evaluation method of claim 4, wherein the content associated with the content reaction data is a radio advertisement.
7. The content reaction evaluation method of claim 1, wherein at least a portion of the content reaction display moves in synchronization with the content presentation.
8. The content reaction evaluation method of claim 1, wherein the content reaction

data includes a content reaction and a time at which the content reaction was recorded.

9. The content reaction evaluation method of claim 1, wherein the collected content reaction data comprises a list of television channels experienced by the first user and the times at which the television channels were experienced by the user.

10. The content reaction evaluation method of claim 1, wherein the collected content reaction data comprises a list of radio channels experienced by the first user and the times at which the radio channels were experienced by the user.

11. The content reaction evaluation method of claim 1, wherein the collected content reaction data comprises set-top box event data.

12. The content reaction evaluation method of claim 1, wherein the content reaction data includes an identifier associated with content experienced while the content reaction data was collected.

13. The content reaction evaluation method of claim 12, wherein the identifier associated with content experienced while the content reaction data was collected includes a broadcast channel.

14. The content reaction evaluation method of claim 13, wherein the broadcast channel is a television channel.

15. The content reaction evaluation method of claim 13, wherein the broadcast channel is a radio channel.

16. The content reaction evaluation method of claim 1, wherein the at least one identifier includes an identifier associated with a first user household.

17. The content reaction evaluation method of claim 1, wherein the at least one identifier includes a set-top box identifier.

18. The content reaction evaluation method of claim 1, wherein the first user is a set-top box.

19. The content reaction evaluation method of claim 1, wherein the first user is a household.

20. The content reaction evaluation method of claim 1, wherein the second user is a television station executive.

21. The content reaction evaluation method of claim 1, wherein the second user is a radio station executive.

22. The content reaction evaluation method of claim 1, wherein the content reaction data display is a graphical display.

23. The content reaction evaluation method of claim 22, wherein the graphical display is a time-based display.

24. The content reaction evaluation method of claim 1, wherein the content reaction data is collected from a plurality of first users, and at least one identifier is associated with content reaction data from each of the respective first users.

25. The content reaction evaluation method of claim 1, further comprising allowing the second user to interact with the content reaction data display.
26. The content reaction evaluation method of claim 1, further comprising allowing the second user to interact with the presented content.
27. The content reaction evaluation method of claim 1, further comprising allowing the second user to interact with the content reaction data display and the presented content.
28. The content reaction evaluation method of claim 1, wherein the content reaction data display includes an analysis of the content reaction data.
29. Method of evaluating content reactions, comprising: collecting content reaction data from a plurality of first users, wherein the content reaction data includes at least one first identifier associated with each of the plurality of first users and at least one second identifier associated with content to which the plurality of first users is reacting; storing the content reaction data in at least one database; presenting the content to a second user; and, displaying content reaction data as the content is presented.
30. The content reaction evaluation method of claim 29, further comprising allowing the second user to interact with the content reaction data display.
31. The content reaction evaluation method of claim 29, further comprising allowing the second user to interact with the presented content.
32. The content reaction evaluation method of claim 29, further comprising allowing the second user to interact with the presented content and the content reaction display.
33. The content reaction evaluation method of claim 29, wherein the content is comprised of at least one program.
34. The content reaction evaluation method of claim 33, wherein the program is a television program.
35. The content reaction evaluation method of claim 33, wherein the program is a radio program.
36. The content reaction evaluation method of claim 29, wherein the content is comprised of at least one advertisement.
37. The content reaction evaluation method of claim 36, wherein the advertisement is a television advertisement.
38. The content reaction evaluation method of claim 36, wherein the advertisement is a radio advertisement.
39. The content reaction evaluation method of claim 29, wherein the content is comprised of a portion of a program.
40. The content reaction evaluation method of claim 39, wherein the program is a television program.
41. The content reaction evaluation method of claim 39, wherein the program is a

radio program.

42. The content reaction evaluation method of claim 29, wherein the content is comprised of a portion of an advertisement.

43. The content reaction evaluation method of claim 42, wherein the advertisement is a television program.

44. The content reaction evaluation method of claim 42, wherein the advertisement is a radio program.

45. The content reaction evaluation method of claim 29, wherein the content reaction data includes set-top box event data.

46. The content reaction evaluation method of claim 29, wherein the content reaction data includes manually logged content experience information.

47. The content reaction evaluation method of claim 29, wherein the content reaction data display includes an analysis of the content reaction data.

48. Method of evaluating content reactions, comprising: collecting set-top box event data, wherein the set-top box data comprises at least one set-top box event, a time at which the set-top box even occurred, at least one content identifier, and at least one set-top box identifier; storing the set-top box event data in at least one database; causing content associated with a content identifier stored in the at least one database to be presented to a first user; and, displaying content reaction data as the content is presented to the first user.

49. The content evaluation method of claim 48, wherein the content reaction data display includes an analysis of the content reaction data.

50. The content evaluation method of claim 49, wherein the content reaction data analysis includes a content viewership rating.

51. The content evaluation method of claim 49, wherein the content reaction data analysis includes a content market share.

52. Method of evaluating television programming reactions, comprising: collecting television programming reaction data; associating the collected television programming reaction data with a household; storing the collected television programming reaction data in at least one database; presenting the television programming to a first user; displaying television programming reaction data to the first user; allowing the first user to interact with the television programming; and, allowing the first user to interact with the television programming reaction data.

53. The television programming reaction evaluation method of claim 52, wherein the television programming reaction data includes the time at which a television channel was changed, and the channel to which the television was changed.

54. The television programming reaction evaluation method of claim 52, wherein the first user can interact with the television programming to achieve a plurality of effects including creating a storyboard, controlling television programming playback direction, controlling television programming playback speed, marking positions within television programming, and moving to discrete locations within the television programming.



55. The television programming reaction evaluation method of claim 52, wherein the television programming includes television advertisements.
56. A content reaction evaluation system, comprising: a content reaction data collector; at least one content reaction database; a content reaction analyzer; and, a content, content reaction data, and content reaction analysis display.
57. The content reaction evaluation system of claim 56, wherein the content reaction data collector is comprised of a set-top box.
58. The content reaction evaluation system of claim 56, wherein the content reaction data collector is a manual log book.
59. The content reaction evaluation system of claim 56, wherein the content reaction analyzer calculates content ratings and content market share.
60. The content reaction evaluation system of claim 56, wherein the display is capable of displaying content, content reaction data, and content reaction analysis information in a plurality of arrangements.
61. The content reaction evaluation system of claim 61, wherein the display arrangements comprise a video stream page, a video details page, a demographics page, and a detailed demographics page.
62. The content reaction evaluation system of claim 60, wherein the display arrangements further comprise a weekly report.
63. The content reaction evaluation system of claim 56, further comprising a content reaction display default preference designator.
64. The content reaction evaluation system of claim 56, further comprising a content reaction display user administrator.
65. The content reaction evaluation system of claim 56, further comprising a login page.
66. The content reaction evaluation system of claim 56, further comprising a content reaction display default preference designator, a content reaction display user administrator, and a login page.
67. A computer generated content reaction evaluation display, comprising: a content presentation region; and, a computer generated content reaction presentation region.
68. The computer generated content reaction evaluation display of claim 67, further comprising at least one content presentation control.
69. The computer generated content reaction evaluation display of claim 68, wherein the at least one content presentation control comprises at least one of a storyboard creation control, a content presentation direction control, a content presentation speed control, and a content position marker control.
70. The computer generated content reaction evaluation display of claim 67, further comprising at least one content reaction presentation control.
71. A computer generated content reaction evaluation display, comprising: a content

presentation region; at least one content presentation control; a computer generated content reaction presentation region; and, at least one contention reaction presentation control.

72. The computer generated content reaction evaluation display of claim 71, wherein the at least one content presentation control comprises at least one of a storyboard creation control, a content presentation direction control, a content presentation speed control, and a content position marker control.

73. The computer generated content reaction evaluation display of claim 71, wherein the at least one content reaction presentation control comprises at least one of a demographic selector, a content reaction region selector, and a content reaction zoom control.

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Jun 12, 2003

PGPUB-DOCUMENT-NUMBER: 20030110109

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030110109 A1

TITLE: Content attribute impact invalidation method

PUBLICATION-DATE: June 12, 2003

## INVENTOR-INFORMATION:

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US-CL-CURRENT: 705/35

## CLAIMS:

We claim as our invention:

1. A method of determining the effect of content attributes on content ratings, comprising the steps of: obtaining content attributes from embedded content information or from external sources; recording set-top box events as content is experienced; correlating set-top box events to content attributes; and, analyzing such correlations over time to determine the effect of content attributes on content ratings.
2. The method of claim 1 in which said content attributes include times at which various content attributes are presented to a set-top box, thereby allowing the present invention to provide detailed correlations between such attributes and set-top box events.
3. A method of determining the effect of content attributes on content ratings for a specific demographic group, comprising the steps of: obtaining content attributes from embedded content information or from external sources; recording set-top box events as content is experienced; correlating set-top box events to content attributes; correlating set-top box events and content attributes to demographic characteristics for each set-top box; and analyzing such correlations over time to determine the effect of content attributes on content ratings for specific demographic groups.
4. The method of claim 3 in which said content attributes include times at which various content attributes are presented to a set-top box, thereby allowing the present invention to provide detailed correlations between set-top box events, set-top box demographics, and content attributes.

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File: PGPB

Aug 7, 2003

PGPUB-DOCUMENT-NUMBER: 20030149649  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20030149649 A1

TITLE: Event invalidation method

PUBLICATION-DATE: August 7, 2003

## INVENTOR-INFORMATION:

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| Vinson, Michael J.   | Sarasota  | FL    | US      |         |
| Foster, Frank S. IV  | Valrico   | FL    | US      |         |

US-CL-CURRENT: 705/35

## CLAIMS:

We claim as our invention:

1. A method of invalidating set-top box events, comprising the steps of: monitoring set-top box events; storing such events in an array; calculating trends in such events; invalidating set-top box events which deviate in a statistically significant manner from observed set-top box event trends, or which match previously defined invalid set-top box events; placing such invalidated set-top box events in an array; and calculating trends in such invalidated set-top box events such that some long-term trends may be revalidated, and to identify new set-top box event categories to be ignored.

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L6: Entry 5 of 9

File: PGPB

Jun 5, 2003

PGPUB-DOCUMENT-NUMBER: 20030105693

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030105693 A1

TITLE: Dynamic operator identification system and methods

PUBLICATION-DATE: June 5, 2003

## INVENTOR-INFORMATION:

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US-CL-CURRENT: 705/35

## CLAIMS:

We claim as our invention:

1. A method of dynamically determining the demographic identity of an individual operating a set-top box, comprising the steps of: monitoring set-top box events for a plurality of set-top boxes; correlating set-top box events with demographic characteristics; applying IDM calculation techniques to determine probabilities for demographic characteristic and set-top box event dataset correlations; ascribing demographic characteristic probabilities to each set-top box over time based on observed set-top box events and their relationship to such IDM probabilities; evaluating such ascribed demographic characteristic probabilities over time through statistical analysis; fitting probabilities ascribed to demographic characteristics to statistically determine the most likely set of constant dataset possibilities for each set-top box; and, fitting set-top box possibility sets to IDM probability sets for a set-top box event.

2. The method for determining the demographic identities of individuals in a home, business, or other location containing a set-top box according to the method of claim 1, further comprising the steps of: storing said demographic identities in an array over time; and applying statistical analyses to said array to determine predominant demographic identities for a given set-top box.

3. A privacy-compliant data collection and data correlation system comprising: a means of collecting individual-specific behavior data without knowing individual-specific demographic information pertaining to the individual about whom such data is collected; a means of accessing demographic data for the region in which the individual resides; and a means of correlating such individual-specific data with such demographic data to determine the demographic identity of each individual about whom data is collected.

4. The privacy-compliant data collection and data correlation system of claim 3,

wherein said individual-specific behavior data collection means is comprised of a set-top box.

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L6: Entry 8 of 9

File: PGPB

Sep 19, 2002

PGPUB-DOCUMENT-NUMBER: 20020133490

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020133490 A1

TITLE: Privacy compliant multiple dataset correlation and content delivery system and methods

PUBLICATION-DATE: September 19, 2002

## INVENTOR-INFORMATION:

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| Foster, Frank S. IV  | Valrico   | FL    | US      |         |

US-CL-CURRENT: 707/9

## CLAIMS:

What is claimed is:

1. An individually targeted content delivery method comprising the steps of: collecting data associated with at least one set top box; deriving at least one user model for each of said at least one set top boxes; storing said derived at least one user model and an identifier corresponding to the set top box from which said at least one user model is derived in a storage means for later retrieval; selecting content and associated content attributes to be delivered to at least one set top box; transmitting said content to said set top box; and causing said content to be presented by said at least one set top box when a correlation between said content attributes and said user model associated with said set top box exists.
2. The individually targeted content delivery method of claim 1, wherein said data is collected in a privacy compliant manner.
3. The individually targeted content delivery method of claim 1, wherein data collected from said set top box includes a record of user interaction with said set top box.
4. The individually targeted content delivery method of claim 1, further comprising the step of transmitting said data to a privacy server, which removes all personally identifiable information from said data before allowing said data to be used.
5. The individually targeted content delivery method of claim 1, wherein said derived user model is based on derived user interests.

6. The individually targeted content delivery method of claim 1, wherein said derived user model is based on a derived user demographic profile.
7. The individually targeted content delivery method of claim 6, wherein said derived user model is further based upon derived user interests.
8. The individually targeted content delivery method of claim 1, wherein said at least one set top box user model is derived using an inverse demographic matrix method.
9. The individually targeted content delivery method of claim 1, wherein said content is repeatedly presented on said selected set top boxes until it has been determined that a user has experienced said content.
10. The individually targeted content delivery method of claim 1, wherein said content must be experienced before user selected content can be experienced.
11. The individually targeted content delivery method of claim 1, wherein said correlation is determined by said set top box.
12. The individually targeted content delivery method of claim 1, wherein said correlation is determined prior to transmitting said content to said set top box, and wherein said transmitting step occurs only when said correlation is high enough to warrant said set top box presenting said content.
13. An individually targeted content delivery method comprising the 'steps of: collecting set top box interaction data associated with at least one set top box in a privacy compliant manner; deriving from said data at least one user model for each of said at least one set top boxes using a user demographic profile and a user interest profile determined using an inverse demographic matrix method; storing said derived at least one user model and an identifier corresponding to the set top box from which said at least one user model is derived in a storage means for later retrieval; selecting content and associated content characteristics to be delivered to at least one set top box; transmitting said content to said set top box; and causing said content to be presented by said at least one set top box when a correlation between said content attributes and said user model associated with said set top box exists.
14. The individually targeted content delivery method of claim 13, wherein said correlation is determined by said set top box.
15. The individually targeted content delivery method of claim 13, wherein said correlation is determined prior to transmitting said content to said set top box, and wherein said transmitting step occurs only when said correlation is high enough to warrant said set top box presenting said content.
16. An individually targeted content delivery method comprising the steps of: collecting set top box interaction data associated with at least one set top box in a privacy compliant manner; transmitting said set top box interaction data to a privacy server, which strips personally identifiable information from said data prior to allowing said data to be used; deriving from said data at least one user model for each of said at least one set top boxes using a user demographic profile and user interest profile as determined using an inverse demographic matrix; storing said derived at least one user model and an identifier corresponding to the set top box from which said at least one user model is derived in a storage means for later retrieval; selecting content and associated content characteristics to be delivered to at least one set top box; transmitting said content to said set top



box; and causing said content to be presented by said at least one set top box when a correlation between said content attributes and said user model associated with said set top box exists.

17. The individually targeted content delivery method of claim 16, wherein said correlation is determined by said set top box.

18. The individually targeted content delivery method of claim 16, wherein said correlation is determined prior to transmitting said content to said set top box, and wherein said transmitting step occurs only when said correlation is high enough to warrant said set top box presenting said content.

19. An individually targeted content delivery method comprising the steps of: collecting set top box interaction data associated with at least one set top box in a privacy compliant manner; deriving from said data at least one user model for each of said at least one set top boxes using a user demographic profile and user interest profile as determined using an inverse demographic matrix; storing said derived at least one user model and an identifier corresponding to the set top box from which said at least one user model is derived in a storage means for later retrieval; selecting content and associated content characteristics to be delivered to at least one set top box; transmitting said content to said set top box; and causing said content to be presented by said at least one set top box when a correlation between said content attributes and said user model associated with said set top box exists, and until it is determined that said content has likely been experienced.

20. The individually targeted content delivery method of claim 19, wherein said content must be experienced before user selected content can be experienced.

21. The individually targeted content delivery method of claim 19, wherein said correlation is determined by said set top box.

22. The individually targeted content delivery method of claim 19, wherein said correlation is determined prior to transmitting said content to said set top box, and wherein said transmitting step occurs only when said correlation is high enough to warrant said set top box presenting said content.

23. An individually targeted content delivery method comprising the steps of: collecting set top box interaction data associated with at least one set top box in a privacy compliant manner; transmitting said set top box interaction data to a privacy server, which strips any personally identifiable information from said data prior to allowing said data to be used by the system; deriving from said data at least one user model for each of said at least one set top boxes using a user demographic profile and user interest profile as determined using an inverse demographic matrix; storing said derived at least one user model and an identifier corresponding to the set top box from which said at least one user model is derived in a storage means for later retrieval; selecting content to be delivered to at least one set top box; selecting content and associated content characteristics to be delivered to at least one set top box; transmitting said content to said set top box; and causing said content to be presented by said at least one set top box when a correlation between said content attributes and said user model associated with said set top box exists, and until it is determined that said content has likely been experienced.

24. The individually targeted content delivery method of claim 23, wherein said content must be experienced before user selected content can be experienced.

25. The individually targeted content delivery method of claim 23, wherein said

correlation is determined by said set top box.

26. The individually targeted content delivery method of claim 23, wherein said correlation is determined prior to transmitting said content to said set top box, and wherein said transmitting step occurs only when said correlation is high enough to warrant said set top box presenting said content.

27. A targeted advertising delivery system, comprising: a plurality of set top boxes; a privacy server, communicatively connected to said at least one set top box; a data center, communicatively connected to said privacy server; a content input means, which allows a content owner to submit content to the data center; and a user model selector, which allows a content owner to select user model attributes corresponding to a group to which particular content is to be delivered.

28. The targeted advertising delivery system of claim 27, in which said privacy server is responsible for removing personal information from communications received from said set top box and assigning a unique code to such data for identification purposes.

29. The targeted advertising delivery system of claim 27, in which said data center is responsible for receiving data and associated unique identifiers from said privacy server and determining at least one user model for each set top box based on said received data.

30. A computer program product for targeted advertising delivery comprising a computer usable medium having a computer readable program code means embodied in the computer usable medium for causing an application program to execute on a computer system, the computer readable program code comprising: computer readable program code means for collecting set top box events; computer readable program code means for deriving a user model based on said collected set top box events; computer readable program code means for storing said user model in a database of user models; computer readable program code means for storing content to be delivered to a set top box; computer readable program code means for selecting from said stored user models and said stored content those user models and content which have a high degree of correlativity; computer readable program code means for transmitting said selected content to a set top box associated with said selected user model; and computer readable program code means for presenting said content via said set top box.

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US Entry 2 of 2

File: EPAB

Nov 25, 1999

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PUB-NO: WO009960789A1

DOCUMENT-IDENTIFIER: WO 9960789 A1

TITLE: INTERACTIVE TELEVISION PROGRAM GUIDE SYSTEM FOR DETERMINING USER VALUES FOR  
DEMOGRAPHIC CATEGORIES

PUBN-DATE: November 25, 1999

## INVENTOR-INFORMATION:

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ELLIS, MICHAEL D

HASSELL, JOEL G

## ASSIGNEE-INFORMATION:

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COUNTRY

UNITED VIDEO PROPERTIES INC

US

APPL-NO: US09910586

APPL-DATE: May 13, 1999

PRIORITY-DATA: US08575098P (May 15, 1998), US13977798A (August 25, 1998)

INT-CL (IPC): H04 N 7/16; H04 N 7/173

EUR-CL (EPC): H04N007/16

## ABSTRACT:

CHG DATE=20000103 STATUS=O>An interactive television program guide system for determining user input values for demographic categories is provided. The system includes user television equipment (44) having a receiver for receiving program guide information for the interactive television program guide, a user input receiver (62) for receiving user input from user interface, such as a remote control (54), a microprocessor which utilizes the user input received to determine user values for demographic categories, and memory for storing the user values determined. In one illustrative use of the system for targeting advertisements to a user of the interactive television program guide, the receiver also receives advertisements, where the advertisements have preselected values for specified demographic categories. The user television equipment, preferably using microprocessor, compares the preselected values for the specified demographic categories associated with the advertisements with values of corresponding demographic categories stored in memory to determine which advertisements should be displayed. Those advertisements determined to be displayable based upon the comparison are then displayed.

First Hit

L5: Entry 2 of 2

File: EPAB

Nov 25, 1999

PUB-NO: WO009960789A1

DOCUMENT-IDENTIFIER: WO 9960789 A1

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INT-CL (IPC): H04 N 7/16; H04 N 7/173

EUR-CL (EPC): H04N007/16

## Freeform Search

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|                  |   |
|------------------|---|
| <b>Database:</b> | US Pre-Grant Publication Full-Text Database |
|                  | US Patents Full-Text Database               |
|                  | US OCR Full-Text Database                   |
|                  | EPO Abstracts Database                      |
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| <b>Term:</b> | <input type="text"/> |
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|-----------------|---------------------------------|-------------------------------------|--------------------------------|-----------------------------|--------------------------------|
| <b>Display:</b> | <input type="text" value="10"/> | <b>Documents in Display Format:</b> | <input type="text" value="-"/> | <b>Starting with Number</b> | <input type="text" value="1"/> |
|-----------------|---------------------------------|-------------------------------------|--------------------------------|-----------------------------|--------------------------------|

  

**Generate:** ☐ Hit List ☒ Hit Count ☐ Side by Side ☐ Image

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Search

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### Search History

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**DATE:** Wednesday, October 29, 2003    [Printable Copy](#)    [Create Case](#)

| <u>Set Name</u><br>side by side                               | <u>Query</u>                 | <u>Hit Count</u> | <u>Set Name</u><br>result set |
|---|------------------------------|------------------|-------------------------------|
| <i>DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR</i> |                              |                  |                               |
| <u>L10</u>  | L8 and errors                | 86               | <u>L10</u>                    |
| <u>L9</u>   | L8 and fit\$ near procedures | 1                | <u>L9</u>                     |
| <u>L8</u>   | L7 and least near squares    | 106              | <u>L8</u>                     |
| <u>L7</u>   | data near mining             | 2881             | <u>L7</u>                     |
| <i>DB=USPT; PLUR=YES; OP=OR</i>                               |                              |                  |                               |
| <u>L6</u>   | 6285983.pn.                  | 1                | <u>L6</u>                     |
| <u>L5</u>   | 5734720.pn.                  | 1                | <u>L5</u>                     |
| <u>L4</u>   | 6055491.pn.                  | 1                | <u>L4</u>                     |
| <u>L3</u>   | 5956693.pn.                  | 1                | <u>L3</u>                     |
| <u>L2</u>   | 6216129.pn.                  | 1                | <u>L2</u>                     |
| <u>L1</u>   | 5559549.pn.                  | 1                | <u>L1</u>                     |

END OF SEARCH HISTORY